

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL COAST REGION  
81 HIGUERA STREET, SUITE 200  
SAN LUIS OBISPO, CALIFORNIA 93401-5427

ORDER NO. 94-80

40-AA-0008

**WASTE DISCHARGE REQUIREMENTS  
FOR  
WALTER AND PATRICIA JOHNSON  
CHICAGO GRADE LANDFILL, INCORPORATED  
CHICAGO GRADE CLASS III LANDFILL  
SAN LUIS OBISPO COUNTY**

The California Regional Water Quality Control Board, Central Coast Region (hereafter Board), finds that:

1. Mr. and Mrs. Walter Johnson, Route 1, Box 68, Templeton, CA 93465 (hereafter "Property Owner") owns the Chicago Grade Class III Landfill (hereafter "Landfill"). Chicago Grade Landfill, Incorporated, Route 1, Box 440, Templeton, CA 93465 operates the Landfill. The Johnsons and Chicago Grade Landfill, Inc. are collectively referred to as "Discharger".
  2. The 45 acre Landfill, of which 28 acres contain waste, is located approximately four miles northeast of Atascadero, north of Highway 41, and east of Homestead Road (T8S, R12E, Section 1), as shown on Attachment "A" included as part of this Order.
  3. These Waste Discharge Requirements (Requirements) are being revised/updated to incorporate criteria currently applicable to solid waste disposal sites, particularly:
    - a. criteria established in California Code of Regulations, Title 23, Division 3, Chapter 15 (Chapter 15), including Article 5, pertaining to landfill water quality monitoring and response programs, as amended July 1, 1991; and
    - b. criteria established in 40 CFR Parts 257 and 258 Solid Waste Facility Disposal Criteria, Final Rule (Known as "Subtitle D"), as promulgated October 9, 1991.
  4. This Order revises/updates and replaces Order No. 88-62, as adopted on June 10, 1988. Order No. 88-62 regulated all waste discharges to the Landfill. Additionally, this Order is intended to cover all items of Order No. 93-84 adopted by the Board on October 8, 1993. Implementation of applicable revised Chapter 15, Article 5 monitoring requirements and various other pertinent landfill changes, including compliance with other State and Federal landfill regulations, will bring the Landfill into compliance with current landfill requirements.
- Physical Description: Geology**
5. Land within 1000 feet of the Landfill is used for agriculture. The nearest residence to the Landfill is 1600 feet to the southeast. The Landfill is located on a 189.1 acre parcel (APN 034-461-001) owned by the Johnsons.
  6. The Landfill is located in a vegetated canyon approximately 1200 feet above mean sea level. The final graded elevation as presented in the June 1994 Report of Disposal Site Information is 1400 feet above mean sea level.
  7. The Discharger's data demonstrate natural geologic materials between the base of the Landfill and ground water cannot ensure that degradation of beneficial uses of ground water beneath or adjacent to the Landfill will not occur.

17. Present and anticipated beneficial uses of ground water in the vicinity of the discharge include:
- a. municipal supply;
  - b. domestic supply; and
  - c. agricultural supply.

#### Landfill Specifics

18. The Landfill is regulated under Integrated Waste Management Board permit number 40-AA-0008.
19. The Landfill has received an average of just under 100 tons per day of refuse. The Landfill does not have a defined service area. Refuse is placed in layers of 2 feet and compacted into lifts 15 feet high with perimeter slopes of 3:1. The site has a remaining life of 28 years and is expected to close in 2022. The existing limit of refuse is shown on Attachment "B" of this Order.
20. The Landfill meets the criteria of the California Code of Regulations as stated in Chapter 15 for classification as a Class III landfill suitable to receive non-hazardous solid wastes. This Order implements the prescriptive standards and performance goals of Chapter 15, as adopted by the State Water Resources Control Board on October 18, 1984, and as amended on July 1, 1991.
21. Wastes containing greater than one percent (>1%) friable asbestos are classified as hazardous under California Code of Regulations, Title 22. Since such wastes do not pose a threat to water quality, Section 25143.7 of the Health and Safety Code permits its disposal in permitted landfills, providing waste discharge requirements specifically allow the discharge and the wastes are handled and disposed in accordance with other applicable State and Federal statutes and regulations.
22. The Discharger submitted a Preliminary Closure and Post Closure Maintenance Plan on July 21, 1994. The report identifies the steps necessary to close the Landfill and gives cost estimates for the post closure maintenance.

23. The Discharger operates wood waste and scrap metal recycling operations adjacent to the Landfill. Wood waste and scrap metal are stockpiled for periodic removal for recycling.

#### Statements of Regulation

24. Due to revisions of Article 5, of Chapter 15, the Discharger submitted a June, 1992 Report of Waste Discharge (ROWD) to update waste discharge requirements (WDRs) for the Landfill, including a monitoring and reporting program. It includes proposals for an improved ground water detection monitoring program, surface and vadose zone monitoring programs and the establishment of a financial assurance instrument to cover all expenses related to future corrective action costs.
25. On October 9, 1991, the Environmental Protection Agency (EPA) promulgated regulations pertaining to solid waste disposal facilities known as 40 CFR, Parts 257 and 258 Solid Waste Disposal Facility Criteria, Final Rule (also known as Subtitle D). California has received EPA authorization (i.e., became an "Approved" State) to implement the Federal Subtitle D regulations. The majority of the Subtitle D regulations for most municipal solid waste landfills became effective and self-implementing on October 9, 1993. The Subtitle D regulations establish minimum criteria for location, design, operation, clean-up, and closure for most municipal solid waste landfills. Subtitle D implementation/applicability is as follows:
- a. Municipal solid waste landfills with Requirements that stopped receiving waste on or before October 9, 1991 are exempt from Subtitle D except for monitoring requirements and deed restrictions.
  - b. Municipal solid waste landfills that received waste on or after October 9, 1991, but stop prior to October 9, 1993, must meet only the final cover requirements specified in Section 258.60(a).

2. Discharge of wastes within the "designated disposal area", where refuse placement has not occurred, is prohibited; unless a composite liner system, as described in Specification B.33., is provided.<sup>c</sup>
  3. Discharge of "hazardous" waste, except for waste that is hazardous due only to its asbestos content, is prohibited. For the purposes of this Order, the term "hazardous" waste is as defined in Chapter 15.<sup>a</sup>
  4. Discharge of "designated" waste is prohibited, except when the discharger demonstrates to the Executive Officer's satisfaction that waste constituents present a lower risk of water quality degradation than indicated by this classification. For the purpose of this Order, the term "designated" waste is as defined in Chapter 15.<sup>a</sup>
  5. Discharge of "liquid wastes" or "semi-solid wastes" (i.e., wastes containing less than 50 percent solids by weight), other than leachate and gas condensate as allowed by Discharge Specification B.8., is prohibited. Exemptions to discharging wastes containing less than 50% solids by weight may be granted by the Executive Officer if the Discharger can demonstrate the discharge will not exceed the moisture-holding capacity of the Landfill waste management unit(s), either initially or as a result of waste management operations, compaction, and/or settlement.<sup>a,c</sup>
  6. Discharge of dewatered sewage or water treatment sludge, which contains less than 50% solids by weight to any Landfill areas, shall meet conditions specified in Discharge Specification B.7.<sup>a</sup>
  7. Discharge of solid or liquid waste containing free liquid or moisture in excess of the waste's moisture holding capacity is prohibited. Waste must pass the paint filter test to determine if free liquids are present.<sup>a,c</sup>
  8. Discharge of waste to ponded water from any source is prohibited.<sup>a</sup>
  9. Ponding of liquids over solid wastes is prohibited.<sup>a</sup>
  10. Discharge of wastes within five (5) feet of the highest anticipated water table elevation, including the capillary fringe, is prohibited.<sup>a</sup>
  11. Discharge of waste within 50 feet of the property line, 100 feet of surface waters, or 100 feet of domestic water supply wells is prohibited.
  12. Discharge of solid or liquid waste or leachate to surface waters, drainageway(s), or ground water, is prohibited.
  13. Discharge of wastes that would reduce or impair the integrity of containment structures is prohibited.<sup>a</sup>
  14. Discharge of wastes which, if commingled with other wastes in the Landfill, could produce violent reaction, heat or pressure, fire or explosion, toxic by-products, or reaction products which in turn:
    - a. require a higher level of containment than provided by the Landfill,
    - b. are restricted hazardous wastes, or
    - c. impair the integrity of containment structures,is prohibited.<sup>a</sup>
  15. Discharge of waste solvents, dry cleaning fluids, paint sludge, pesticides, phenols, brine, and acid and alkaline solutions is prohibited.<sup>a</sup>
  16. Discharge of oils or other liquid petroleum products is prohibited.
  17. Discharge of chemical and biological warfare agents is prohibited.
- B. DISCHARGE SPECIFICATIONS**
- General Specifications
1. The Discharger shall implement the attached Monitoring and Reporting Program (Program) No. 94-80 in order to detect, at the earliest opportunity, any unauthorized discharge of waste constituents from the Landfill, or any

8. Condensate or leachate collected from a Landfill waste management unit may be discharged to that waste management unit only if the following conditions are met:
  - a. the Landfill condensate or leachate shall be returned to the appropriately lined Landfill waste management unit that produced it. The containment system must meet the performance standard of **Discharge Specification B.33.** of this Order;
  - b. condensate shall have no chemical additives which could adversely affect containment features, and shall consist only of water and liquid contaminants removed from the gas recovered at a waste management unit;
  - c. condensate or leachate shall be non-hazardous; and,
  - d. discharge is in compliance with this Order.
9. With written Executive Officer approval, water (including non-hazardous and non-designated leachate and gas condensate) may be utilized over all Landfill areas, including unlined Landfill areas, during disposal site operations. The use of such liquids shall be limited to the amount necessary for dust control, construction (soil compaction), and vegetation establishment/irrigation purposes. The Discharger shall minimize the infiltration of rain-water and prevent infiltration of leachate or gas condensate into areas containing refuse, except as allowed by **Discharge Specification B.8.**
10. The Discharger shall prevent formation of a habitat for carriers of pathogenic microorganisms.
11. The handling and disposal of asbestos containing wastes shall be in accordance with all applicable Federal, State, and Local statutes and regulations.
12. Ash wastes may be discharged in the Landfill only when chemical analyses demonstrate, to the Executive Officer's satisfaction, that the waste is non-hazardous.<sup>4</sup>
13. Refuse shall be covered daily by at least six inches of cover material or, if allowed by the Local Enforcement Agency, meet Performance Standards of the California Code of Regulations, Title 14, Section 17683. Cover shall promote lateral runoff of rainfall away from the active disposal area. Upon Executive Officer approval, alternative daily cover materials may be utilized. Long-term alternatives to the daily cover requirements must satisfy the alternative daily cover procedures and be approved by the California Integrated Waste Management Board.<sup>5</sup>
14. All refuse material that is wind-blown outside the active Landfill area shall be collected regularly and disposed in the Landfill. If wind-blown litter becomes a continuing problem, a containment barrier (screens and/or fences) shall be constructed to prevent spreading of refuse.
15. Waste shall not be discharged to a wetland, as defined in 40 CFR Section 232.2(r), or to any portion thereof, unless the Discharger successfully completes all demonstrations pursuant to 40 CFR Section 258.12(a). Such demonstration is subject to Executive Officer approval.<sup>6</sup>
16. The Discharger shall obtain and maintain assurances of financial responsibility for initiating and completing corrective action for all known or reasonably foreseeable releases from the Landfill until the end of the Landfill's Post-Closure Maintenance Period and during any compliance period, pursuant to Chapter 15 regulations.<sup>7</sup>
17. Wastes discharged in violation of these Requirements and after the adoption date of this Order, shall be removed and relocated.

vegetation. Soil amendments and fertilizers (including wastewater sludge) used to establish vegetation shall not exceed the vegetation's agronomic rates (i.e., annual nutrient needs), unless approved by the Executive Officer.

#### Design Criteria

30. Waste management units, containment structures and drainage facilities shall be designed and constructed under the direct supervision of a California registered civil engineer or a certified engineering geologist, and shall be certified by that individual as meeting the prescriptive standards and performance goals of all State and Federal landfill regulations including, but not limited to Chapter 15 and 40 CFR Parts 257 and 258, prior to waste discharge. Drainage ditches crossing over landfill areas shall be lined with material which provides an effective field permeability of  $1.0 \times 10^{-6}$  cm/sec or less. If material other than clay or synthetic is used, data must be provided to, and approved by, the Executive Officer. The drainage facilities shall be designed and constructed to accommodate anticipated precipitation and peak surface runoff flows from a 100-year, 24-hour event.<sup>4c</sup>

31. All Landfill facilities shall be designed and constructed to ensure the integrity of the final slopes under both static and dynamic conditions considering seismic acceleration and to minimize damage during the "maximum probable earthquake" to the graded foundation and to structures which control leachate, surface drainage, erosion, and gas. The slope of those portions of the fill which will be the final exterior surface shall be developed in accordance with all Federal requirements, including Chapter 15, Subsection 2581, and the following:

- a. all slopes shall have a minimum of one 15-foot wide bench for every 50 feet of vertical height;
- b. slopes shall not be steeper than a horizontal to vertical ratio of 1.75:1 (57%);

- c. slopes steeper than a horizontal to vertical ratio of 3:1 (33%) shall be supported by a slope stability analysis report approved by the Executive Officer; and,
- d. slopes with grades less than 3% require Executive Officer approval.

The operator must demonstrate that all containment structures, including liners, leachate collection and removal systems, and surface water control systems are designed to resist the maximum horizontal acceleration in lithified earth material for the site. The owner or operator must place the demonstration in the operating record and notify the Executive Officer that it has been placed in the operating record.

32. Waste management units, containment structures, and drainage facilities shall be designed, constructed and maintained to limit, to the greatest extent possible, ponding, infiltration, inundation, erosion, slope failure, washout, overtopping, and damage due to natural disasters (e.g., floods with a predicted frequency of once in 100 years, the maximum probable earthquake, and severe wind storms).<sup>4</sup>

33. Wastes shall not be discharged to areas outside the footprint area which had not received waste as of April 9, 1994, unless the discharge is to an area equipped with a containment system, which meets either a. or b. below:

- a. a composite liner and a leachate collection and removal system. The liner must consist of two components:
  - i. **Lower Component:** a minimum two-foot layer of compacted soil with a hydraulic conductivity of no more than  $1 \times 10^{-7}$  cm/sec (0.1 feet/year); and
  - ii. **Upper Component:** a minimum 40-mil flexible membrane liner (FML) or a minimum 60-mil high density polyethylene (HDPE). The upper component must be installed in direct and uniform contact with the lower component; or

laboratory permeability tests to determine field permeabilities as long as a reasonable number of field permeability tests are also conducted. Construction methods and quality assurance procedures shall be submitted for Regional Board review, and shall insure all parts of the low-permeability layer meet the hydraulic conductivity and compaction requirements.<sup>a</sup>

37. All landfill areas which have not reached final fill elevation, but will remain inactive over one-year, must be provided with long-term intermediate cover. The thickness and permeability of the long-term intermediate cover shall be based primarily on site specific conditions including, but not limited to erosion control, functional life of the intermediate cover, volume of underlying waste, characteristics (permeability, thickness and composition) of existing cover, annual rainfall, depth to ground water, geologic conditions, and effectiveness of existing monitoring system.
38. The Discharger shall implement final closure activities as the site operation progresses (e.g., within 30 days after a particular Unit or portion of a Unit reaches final fill elevation, final closure cover must be provided for areas at final fill elevation), in accordance with requirements consistent with the closure of the entire site, as approved by the Executive Officer and the Integrated Waste Management Board in accordance with the most recently approved closure plan.<sup>a,b</sup>
39. All closed landfill waste management units shall be provided with at least two permanent monuments, installed by a licensed land surveyor, from which the location and elevation of all wastes, containment structures, and monitoring facilities can be determined throughout the post-closure maintenance period. Cumulative waste subsidence and settlement of areas where final cover is installed, shall be documented in the annual report.<sup>a</sup>
40. Partial closure shall be accomplished by implementing closure activities, including but not limited to: placement of final cover, final grading, maintenance, revegetation, and installation of environmental monitoring

control systems consistent with the closure of the entire site. Units closed in accordance with a Closure Plan approved by the Executive Officer and the California Integrated Waste Management Board, are not subject to future regulatory changes, unless monitoring data indicate impairment of beneficial uses of ground water.<sup>a,b</sup>

41. Alternative intermediate and final cover designs may be considered for Executive Officer approval, if such designs provide equivalent reduction in infiltration and protection from wind and water erosion.<sup>a</sup>
42. Methane and other Landfill gases shall be adequately vented, removed from the Landfill, or otherwise controlled, as required, to prevent the danger of explosion, adverse health effects, nuisance conditions, or the impairment of State waters' beneficial uses due to migration through the vadose (unsaturated) zone. Discharger shall comply with gas control requirements pursuant to Title 14 regulations.<sup>a</sup>

#### Reporting

43. Discharger shall notify Board staff, within 24 hours by telephone and within seven days in writing, of any noncompliance potentially or actually endangering health or the environment. Any noncompliance which threatens the Landfill's containment integrity shall be promptly corrected. Correction schedules are subject to the approval of the Executive Officer, except when delays will threaten the environment and/or the Landfill's integrity (i.e., emergency corrective measures). Corrections initiated prior to Executive Officer approval shall be so stated in the written report. The written report shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and times or anticipated duration; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. This provision includes, but is not limited to:
  - a. violation of a discharge prohibition;
  - b. violation of any treatment system's discharge limitation;

- b. The Detection Monitoring Parameters for soil pore gas samples; and VOC<sub>org</sub>, a composite parameter that encompasses a variety of gaseous-phase VOCs include those listed in **Program Part I.E.3.c.**

3. **Additional Monitoring Points or Background Monitoring Points.** By June 30, 1995, the Discharger shall, install any additional ground water, soil pore liquid, soil pore gas, or leachate monitoring devices required to fulfill the terms of any Discharge Monitoring Program issued by the Executive Officer.

4. **Additional Requirements**

- a. The concentrations of indicator parameters or waste constituents in water passing through the "Detection" Points of Compliance shall not exceed the "water quality protection standard(s)" established pursuant to **Monitoring and Reporting Program No. 94-80 (Program)**, which is attached and made part of this Order.
- b. Discharge of waste shall not cause a "statistically significant" increase over background for any of the constituents of concern or monitoring parameters listed in **Appendix I and II of Subtitle D.**
- c. Discharge of waste shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Board or the State Water Resources Control Board.
- d. Discharge of waste shall not cause concentrations of chemicals and radionuclides in underlying and downgradient ground water to exceed limits set forth in Title 22, Chapter 15, Articles 4 and 5 of the code.
- e. Discharge of waste shall not adversely impact the quality of water in any aquifer.

- f. Discharge of waste shall not cause ground water in downgradient wells to exceed the State Department of Health Services latest recommended Drinking Water Action Levels or Maximum Contaminant Levels.

**D. PROVISIONS**

**General Provisions**

1. Order No. 88-62 "Waste Discharge Requirements for Chicago Grade Landfill," adopted by the Board on June 10, 1988, is hereby rescinded.
2. The Discharger shall comply with "**Monitoring and Reporting Program No. 94-80 (Program)**", as specified by the Executive Officer.
3. The Discharger shall maintain a copy of this Order at the facility and make it available at all times to regulatory agency personnel and to facility operating personnel, who shall be familiar with its contents.
4. The Discharger shall comply with all other applicable provisions of Chapter 15, Subtitle D and other State and Federal landfill regulations that are not specifically referred to in this Order. If any applicable regulation requirements overlap or conflict in any manner, the most restrictive requirement shall govern in all cases, unless specifically stated otherwise in this Order, or as directed by the Executive Officer.
5. The Discharger shall maintain legible records of the volume and type of each waste discharged at each waste management unit and the manner and location of discharge. Such records shall be maintained at the facility until the beginning of the post-closure maintenance period. These records shall be available for review by representatives of the Board and of the State Water Resources Control Board at any time during normal business hours. At the beginning of the post-closure maintenance period, copies of these records shall be sent to the Regional Board.\*

information is true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

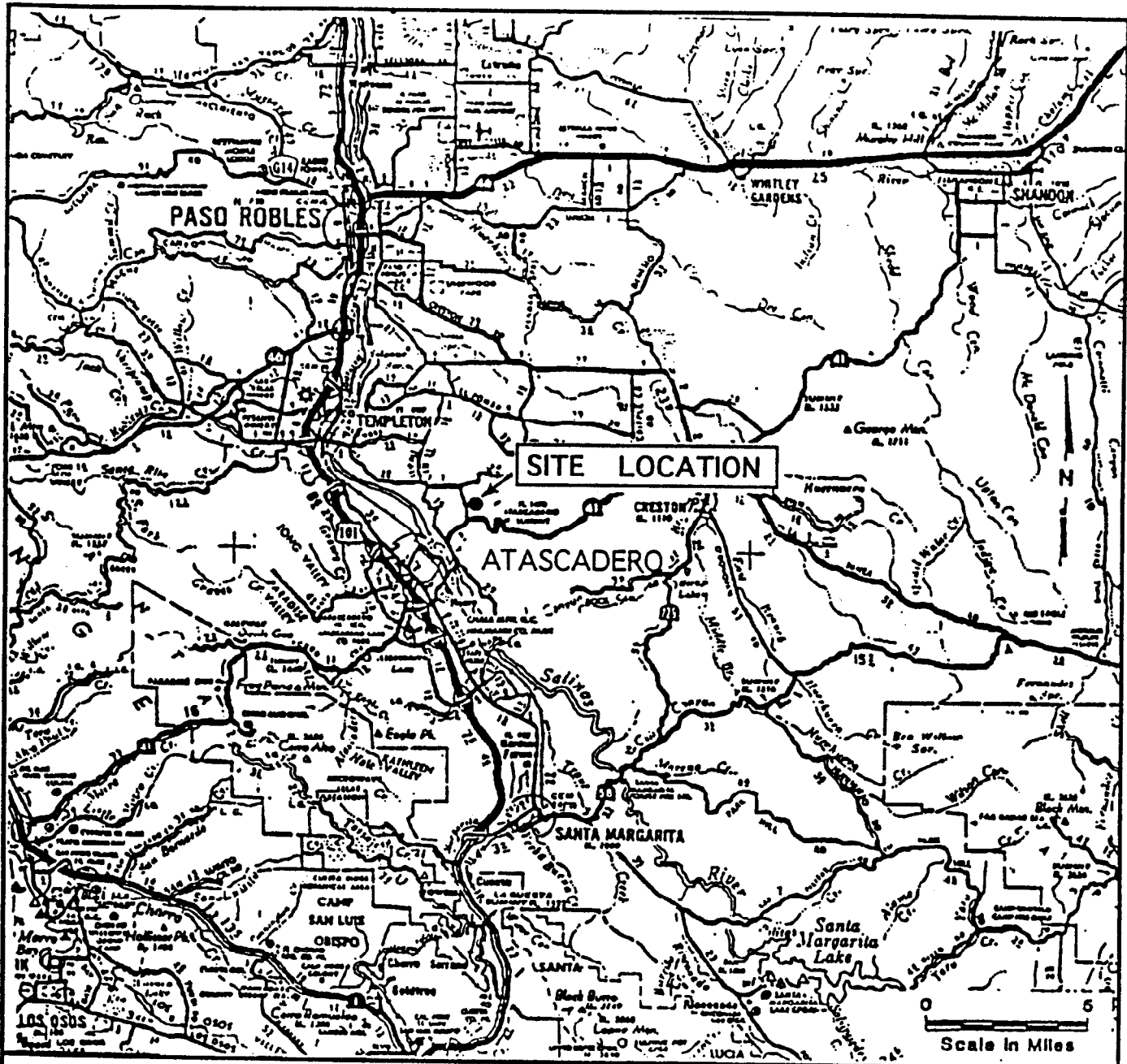
15. Except for data determined to be confidential under Section 13267 (b) of the California Water Code, all reports prepared in accordance with this Order shall be available for public inspection at the Regional Board office.<sup>d</sup>
16. The Discharger shall notify the Board in writing of any proposed change in ownership or responsibility for construction or operation of the facility. This notification shall be given at least 90 days prior to the effective date of the change and shall be accompanied by an amended Report of Waste Discharge and any technical documents that are needed to demonstrate continued compliance with these WDRs. In the event of any change in ownership of this waste management facility, the Discharger shall notify the succeeding owner or operator, in writing, of the existence of this Order. A copy of that notification shall be sent to the Board. Notification to the Board shall also comply with Section 2590(c) of Chapter 15.<sup>a</sup>
17. To assume operation pursuant to this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the state of incorporation if a corporation, the name and address and telephone number of the persons responsible for contact with the Board, and a statement indicating that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a violation of Section 13264 of the Water Code (discharge without waste discharge requirements). Transfer may be approved or disapproved in writing by the Executive Officer.<sup>d</sup>
18. The Discharger shall submit a 'Wet Weather Preparedness Report' by November 1, of each year. The report must address, in detail, compliance with all wet weather preparedness related specifications (e.g., Discharge

Specifications B.19. through B.29.) of this Order, and all other relevant Chapter 15 and Subtitle D criteria.

19. The Discharger shall maintain a program for periodic intake load-checking. The load checking program shall be adequately designed to ensure that "hazardous wastes" and "unauthorized designated wastes" are not discharged to the Landfill. The load checking program shall be submitted to the Executive Officer for review and approval by **January 30, 1995**. The program shall include, but not be limited to:<sup>a</sup>
  - a. number of random loads to be checked per month and/or year;
  - b. training program for on-site personnel;
  - c. record keeping and reporting program;
  - d. program implementation schedule;
  - e. alternatives for waste found to not be in compliance with these Requirements; and,
  - f. example of signs posted at the facility.
20. Hazardous waste warning signs that adequately inform and warn users of hazardous waste restrictions shall be posted on a legible roadway sign at the entrance in both English and Spanish. The signs shall also list penalties for illegal dumping. A specific list of Hazardous Wastes and other types of materials prohibited at this landfill shall be provided to commercial waste haulers that use this Landfill and shall be available to all other site users upon request.
21. The Discharger shall submit to the Regional Board, for Executive Officer approval, an updated closure and post-closure maintenance plan (Closure Plan) by **April 1, 1997 and every five years thereafter**. The Closure Plan shall describe the methods and controls to be used to assure protection of the quality of surface and ground waters of the area during partial and final closure operations and during any proposed subsequent use of the land. The Closure Plan shall include:



- c. discuss any plans/proposals to close or partially close any modules or portions of modules, any proposed liner systems and respective design components, any proposed plans for long-term intermediate cover for Landfill areas which may remain inactive for long periods of time.
33. The Chicago Grade Landfill, Inc. shall establish a Financial Assurance Instrument (Instrument), approved by the Executive Officer, to cover the estimated Article 5 costs to initiate and complete corrective action of the "worse case" reasonably foreseeable release. The Discharger shall submit a "Financial Assurance for Corrective Action" report which validates the estimated cost of corrective action financial assurance and the ongoing viability of a financial assurance mechanism, or proposes and substantiates any needed changes. The report is due **March 30, 1995**, and every five years thereafter.<sup>3,c</sup>
  34. By **March 30, 1995**, the Discharger shall submit a signed original Financial Assurance Instrument for corrective actions as outlined in **Provision D.33.**, above, for Executive Officer review and approval.
  35. Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of Section 13267 of the California Water Code, or falsifying any information provided therein, is guilty of a misdemeanor.<sup>d</sup>
  36. Prior to **March 30, 1995**, the Discharger shall submit a technical report addressing compliance with all terms of this Order. The report shall include an implementation schedule for all work required by this Order.
  37. The Discharger shall submit a "Monitoring Feasibility Report" by **June 30, 1995** for the Landfill. The Report shall address the feasibility of soil pore gas and liquid monitoring; expansion of ground water in the Monterey Shale Aquifer; and all other monitoring required by current regulations. The Report shall include a workplan and date specific time schedule for installing all additional monitoring equipment.
  38. The Board will review this Order periodically and may revise these Requirements when necessary.



*ATTACHMENT A*  
*SITE LOCATION MAP*  
*CHICAGO GRADE CLASS III LANDFILL*

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL COAST REGION  
81 Higuera Street, Suite 200  
San Luis Obispo, California 93401-5427**

**MONITORING AND REPORTING PROGRAM NO. 94-80  
FOR  
CHICAGO GRADE  
CLASS III LANDFILL  
WALTER AND PATRICIA JOHNSON  
CHICAGO GRADE LANDFILL, INCORPORATED  
SAN LUIS OBISPO COUNTY**

**PART I: MONITORING AND  
OBSERVATION SCHEDULE**

Unless otherwise indicated, all required monitoring and observations shall be reported in the **Detection Monitoring Report** and/or the **Annual Summary Report**, as outlined in Part IV of this Monitoring and Reporting Program .

**A. INTAKE MONITORING**

The Discharger shall maintain a daily record of the waste stream. The record shall include the following:

1. Weight and volume of waste received;
2. Running totals of volume received, volume remaining for waste placement, and site life expectancy;
3. Current fill area;
4. Waste type and diversion quantities; and
5. Log of random load checking program. The log shall contain a record of refused loads, including the type of waste refused, and the date, name, address , and phone number of the party attempting to dispose of the waste.

**B. SITE INSPECTIONS**

The Discharger shall inspect the Landfill site in accordance with the following schedule, recording, at a minimum, the **Standard Observations** as defined in Part V.

**Site inspection Schedule:**

1. During the wet weather season (October through April), following each storm which produces storm water discharge, with inspections at least monthly.
2. During the dry weather season, a minimum of one inspection each Monitoring Period.

**C. LEACHATE AND DRAINAGE SYSTEMS  
INSPECTIONS**

If a leachate collection and removal system is installed at the Landfill, the Discharger shall inspect the leachate system and record the following information:

1. **Weekly**; leachate containment system integrity, record volume of leachate collected and disposal method used;
2. **Quarterly**; pumping system operational check;
3. **Annually**; leachate collection and removal system testing as required by Chapter 15, Article 4, §2543(d), reporting the results as part of the **Annual Summary Report** required by **Part IV.B.** of this Monitoring and Reporting Program. During the annual inspection, particular attention shall be given to identifying evidence of biofouling (i.e., biological clogging) of the system. The absence or presence of biofouling shall be addressed in the inspection report.

sulfate  
manganese  
sodium

- b. For surface water, in addition to the Monitoring Parameters included in "a.", samples shall also be analyzed for:

total suspended solids  
specific conductance  
total organic carbon

These parameters are not subject to Part III of this Program.

- c. For all gas bearing media, the Monitoring Parameters shall include:

Volatile Organic Compounds  
Methane  
Carbon Dioxide

Statistical and non-statistical assessment methods, as required by Part III, shall be used to evaluate the sampling results.

**4. Constituents of Concern**

The Constituents of Concern for Water Bearing Media include:

carbonate  
all constituents listed in Appendix II to 40 CFR, part 258

Monitoring for Constituents of Concern (COC) shall encompass only those Constituents of Concern that do not also serve as a Monitoring Parameters.

**5. Ground Water Flow Rate and Direction**

For each monitored ground water body, the Discharger shall measure the water level in each well, at least quarterly, including the times of expected highest and lowest elevations of the water level, and determine the presence of vertical gradients, and ground water flow rate and direction for the respective ground water body. Ground water elevations for all wells in a given ground water body shall be measured within a period of time short enough to avoid temporal variations in ground water flow which could preclude accurate determination of ground water flow rate and direction (40 CFR §258.53(d)). The Discharger shall compare observed ground water characteristics with those from previous determinations, noting the appearance of any trends and of any indications that a change in the hydrogeologic conditions beneath the site has occurred. This information shall be reported in the Detection Monitoring Report required under Part IV.A. of this Monitoring and Reporting Program.

**6. Thirty-Day Sample Procurement Limitation**

For any given monitored medium, the samples taken from all Monitoring Points and Background Monitoring Points to satisfy the data analysis requirements for a given Monitoring Period shall all be taken within a span not exceeding 30 days, and shall be taken in a manner that insures sample independence to the greatest extent feasible [§2550.7(e)(12)(B) of Article 5].

results involving detection of these analytes in any background or downgradient sample shall be reported and flagged for easy reference by Regional Board Staff.

6. Unknown chromatographic peaks shall be reported, along with an estimate of the concentration of the unknown analyte. When unknown peaks are encountered, second column or second method confirmation procedures shall be performed to attempt to identify and more accurately quantify the unknown analyte.
7. In cases where contaminants are detected in QA/QC samples (i.e., field, trip, or lab blanks), the accompanying sample results shall be appropriately flagged.
8. The Method Detection Limit shall always be calculated such that it represents a concentration associated with a 99% reliability of a non-zero result.

#### B. CONCENTRATION LIMITS

The concentration limit for any given Constituent of Concern or Monitoring Parameter in a given monitored medium shall be either:

1. the constituent's background value, established using historical records and approved by the Executive Officer; or
2. the constituent's interval limits, established by the Discharger and approved by the Executive Officer; or
3. the constituents Method Detection Limit, in cases where the constituent's Method Detection Limit is exceeded in less than 10% of the historical samples.

#### C. INITIAL BACKGROUND DETERMINATION

For the purpose of establishing an initial pool of background data for each Constituent of Concern and each Monitoring Parameter at each Background Monitoring Point in each monitored medium the Discharger shall:

1. Collect at least one sample quarterly for at least one year from each Background Monitoring Point in each monitored medium and analyze for all newly-added Constituent(s) of Concern and Monitoring Parameter(s), including any added by the adoption of this Order; and
2. Sample new Background Monitoring Points, including any added by this Order, at least quarterly for at least one year, analyzing for all Constituents of Concern and Monitoring Parameters.

Once this reference set of background data is collected, the Discharger shall include it as a separate identified item in the ensuing monitoring report submittal.

#### D. RECORDS TO BE MAINTAINED

Written records shall be maintained by the Discharger or laboratory, and shall be retained for a minimum of five years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Board. Such records shall show the following for each sample:

1. Identity of sample and of the Monitoring Point or Background Monitoring Point from which it was taken, along with the identity of the individual who obtained the sample;
2. Date and time of sampling;
3. Date and time that analyses were started and completed, and the name of the personnel performing each analysis;
4. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used;
5. Calculation of results; and
6. Results of analyses, and the Method Detection Limit and Practical Quantitation Limit for each analysis.

- c. The Bartlett's statistic for equal variances exceeds a critical value calculated at the 5% confidence level with the degrees of freedom defined with the number of monitoring points minus one.

If the use of the Natural Logs normalize the data (coefficient of variation  $< 1$ , Chi-Square  $<$  Chi-Square calculated critical value, and Bartlett's statistic  $<$  Bartlett's critical value) then ANOVA is the statistical procedure of choice and is completed, in accordance with Part III.B.1. above, using the modified database;]

**3. One-Way Non-Parametric ANOVA (Kruskal-Wallis Test), followed by multiple comparisons**

This method requires at least nine independent samples from each Monitoring Point and Background Monitoring Point; therefore, the Discharger shall anticipate the need for more samples per Monitoring Point, based upon past monitoring results. The method shall be used for constituents which are historically detected in background at least 50% of the time but less than 85% of the time. The ANOVA shall be carried out at the 95% confidence level. Following the ANOVA, the data from each downgradient Monitoring Point shall be tested at a 99% confidence level against the pooled background data. If these multiple comparisons cause the Null Hypothesis to be rejected at any Monitoring Point, the Discharger shall conclude that a release is tentatively indicated for that constituent and shall immediately implement the appropriate retest procedure under Part III.D.; or

**4. Method of Proportions**

This method shall be used for constituents which are historically detected in background at least 10% of the time but less than 50% of the time. This method requires:

- a. At least nine downgradient data points per Monitoring Point per Monitoring Period;
- b. At least thirty data points in the combined data set; and
- c. That  $n * P > 5$  (where  $n$  is the number of data points in the combined data set and  $P$  is the proportion of the combined set that exceeds the Method Detection Limit);

Therefore, the Discharger shall anticipate the number of samples required, based upon past monitoring results. The test shall be carried out at the 99% confidence level. If the analysis results in rejection of the Null Hypothesis, the Discharger shall conclude that a release is tentatively indicated for that constituent or parameter, and shall immediately implement the appropriate retest procedure under Part III.D.; or

**C. NON-STATISTICAL METHOD**

The Discharger shall use the following non-statistical method for analyzing all constituents which are detected in less than 10% of applicable background samples. Background shall be established in accordance with Part II.C. of this Monitoring and Reporting Program. This method involves a two-step process:

1. From all constituents to which this method applies, compile a list of those constituents which exceed their respective Method Detection Limit in the downgradient sample of a given Monitoring Point, then;
2. Evaluate whether the listed constituents meet either of two possible triggering conditions. Either, the list contains two or more constituents, or contains one constituent which equals or exceeds its Practical Quantitation Limit. If either condition is met, the Discharger shall conclude that a release is tentatively indicated and shall immediately implement the appropriate retest procedure under Part III.D.

## PART IV: REPORTING

### A. GENERAL

A written **Detection Monitoring Report** shall be submitted semi-annually in accordance with the Monitoring Period dates defined in Part V.H. of this Monitoring and Reporting Program. The Discharger shall submit a report concerning the analysis of all Constituents of Concern each time the analysis is carried out in accordance with this Monitoring and Reporting Program. All reports, required under this section, shall be submitted no later than thirty days following the end of both the Winter/Spring and Summer/Fall Monitoring Periods (i.e., July 30 and January 30). All reports shall be comprised, as appropriate, of at least the following:

#### 1. Letter of Transmittal

A letter transmitting the essential points shall accompany each report. Such a letter shall include a discussion of any violations found since the last such report was submitted, and shall describe actions taken or planned for correcting those violations. If the Discharger has previously submitted a detailed time schedule for correcting said requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory. If no violations have occurred since the last submittal, this shall be stated in the letter of transmittal. Monitoring reports and the letter transmitting the monitoring reports shall be signed by a principal executive officer at the level of vice president or above, or by his/her duly authorized representative, if such a representative is responsible for the overall operation of the facility from which the discharge originates. The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true, complete, and correct.

#### 2. Compliance Evaluation Summary

The summary shall contain at least:

- a. For each monitored ground water body, a description and graphical presentation of the velocity and direction of ground water flow under/around the Unit, based upon water level elevations taken during the collection of the water quality data submitted in the report.
- b. For each monitoring well addressed by the report: a description of; the method and time of water level measurement, the type of pump used for purging and the placement of the pump in the well, and the method of purging (the pumping rate, the equipment and methods used to monitor field pH, temperature, and conductivity during purging, the calibration of the field equipment, results of the pH, temperature, conductivity, and turbidity testing, the well recovery time, and the method of disposing of the purge water).
- c. For each Monitoring Point and Background Monitoring Point addressed by the report, a description of the type of pump, or other device, used, its placement for sampling, and a description of the sampling procedure (number of samples, field blanks, travel blanks, and duplicate samples taken; the type of containers and preservatives used; the date and time of sampling; the name and qualifications of the person actually taking the samples; description of any anomalies).
- d. Discussion of the Post-Sampling Purge method in accordance with Chapter 15 [§2550.7(e)(12)(B) of Article 5].

**3. Leachate Results**

Results of annual leachate system testing as required by §2543(d) of Article 5.

**4. Discussion**

A comprehensive discussion of the compliance record, the result of any corrective actions taken or planned which may be needed to bring the Discharger into full compliance with the waste discharge requirements, and progress of the cleanup operation. A summary of the ground water and surface water analyses, indicating any changes made since the previous annual report.

**5. Map**

A map showing the areas where filling has taken place during the previous calendar year. Indicate areas, if any, in which filling has been completed or intermediate cover has been placed.

**2. Response to an Initial Indication of a Release**

Should the initial statistical or non-statistical comparison (under **Part III. B. or C.** of this Monitoring and Reporting Program) indicate that a release is tentatively identified, the Discharger shall;

- a. Within 24 hours, notify their designated Regional Water Board staff contact verbally as to the Monitoring Point(s) and constituent(s) or parameter(s) involved;
- b. Provide written notification by certified mail within seven days of such determination; and
- c. Shall carry out a discrete retest in accordance with **Part III.D.** of this Monitoring and Reporting Program (Monitoring and Reporting Program).

**C. CONTINGENCY RESPONSE****1. Leachate Seep**

The Discharger shall, within 24 hours report by telephone concerning the discovery any previously unreported seepage from the disposal area. A written report shall be filed with the Board within seven days, containing at least the following information:

- a. Map;—A map showing the location(s) of seepage;
- b. Flow rate;—An estimate of the flow rate;
- c. Description;—A description of the nature of the discharge (e.g., all pertinent observations and analyses); and
- d. Corrective measures; approved (or proposed for consideration) by the Regional Water Board Executive Officer.

If the retest confirms the existence of a release, the Discharger shall carry out the requirements of **Part C.4.** In any case, the Discharger shall inform the Regional Water Board of the outcome within 24 hours of results becoming available, following up with written results submitted by certified mail within seven days.

**3. Physical Evidence of a Release**

If either the Discharger or the Regional Board Executive Officer determines that there is significant physical evidence of a release [23 CCR §2550.1(3)], the Discharger shall conclude that a release has been discovered and shall:

- a. Within seven days notify the Regional Water Board of this fact by certified mail (or acknowledge the Regional Water Board's determination);
- b. Carry out the requirements of **Part C.4.** for all potentially-affected monitored media; and



- a. Initial notification to Affected Persons shall be accomplished within 14 days of making this conclusion and shall include a description of the Discharger's current knowledge of the nature and extent of the release.
- b. Subsequent to initial notification, the Discharger shall provide updates to all Affected Persons, including any persons newly affected by a change in the boundary of the release, within 14 days of concluding there has been any material change in the nature or extent of the release.
- c. Each time the Discharger sends a notification to Affected Persons (under a. or b., above), the Discharger shall, within seven days of sending such notification, provide the Regional Board with both a copy of the notification and a current mailing list of Affected Persons.

#### **D. RESPONSE TO VOC DETECTION IN BACKGROUND**

1. Except as indicated in D.2. below, any time the laboratory analysis of a sample from a Background Monitoring Point shows either (1) two or more VOCs above their respective Method Detection Limit, or (2) one VOC above its respective Practical Quantitation Limit, the Discharger shall;
  - a. Within 24 hours, notify the Regional Board by phone that possible Background Monitoring Point contamination has occurred,

- b. Follow up with written notification by certified mail within seven days, and
- c. Within thirty days, obtain two new independent VOC samples from that Background Monitoring Point and send them for laboratory analysis of all detectable VOCs.

If either or both the new samples validates the presence of VOC(s), at the Background Monitoring Point, the Discharger shall:

- a. Within 24 hours, notify the Regional Board about the VOC(s) verified to be present at that Background Monitoring Point,
  - b. Provide written notification by certified mail within seven days of validation; and
  - c. Within 180 days of validation, submit a report, acceptable to the Executive Officer, which; examines the possibility that the detected VOC(s) originated from other than the Unit, and proposes appropriate changes to the Monitoring and Reporting Program.
2. If the Executive Officer determines, after reviewing the report submitted under Part IV.D.1. above, that the VOC(s) detected originated from a source other than the Unit, the Executive Officer will make appropriate changes to the Monitoring and Reporting Program.
  3. If the Executive Officer determines, after reviewing the report submitted under Part IV.D.1., that the detected VOC(s) most likely originated from the Unit, the Discharger shall assume that a release has been detected and shall immediately begin carrying out the requirements of Part IV.C.4. of this Monitoring and Reporting Program.

## I. STANDARD OBSERVATIONS

## 1. For Receiving Waters:

- a. Floating and suspended materials of waste origin; presence or absence, source, and size of affected area;
- b. Discoloration and turbidity; description of color, source, and size of affected area;
- c. Evidence of odors; presence or absence, characterization, source, and distance of travel from source.
- d. Evidence of beneficial use; presence of water-associated wildlife.
- e. Flow rate to the receiving water.

## 2. Along the perimeter of the Unit:

- a. Evidence of liquid leaving or entering the Unit, estimated size of affected area, and flow rate (show affected area on map).
- b. Evidence of odors; presence or absence, characterization, source, and distance of travel from source.
- c. Evidence of erosion and/or of exposed refuse.
- d. Inspection of all storm water discharge locations for evidence of non-storm water discharges during dry seasons, and integrity during wet seasons.

## 3. For the Unit:

- a. Evidence of ponded water at any point on the waste management facility (show affected area on map).
- b. Evidence of odors; presence or absence, characterization, source, and distance of travel from source.
- c. Evidence of erosion and/or of daylighted refuse.
- d. Compliance with Storm Water Pollution Prevention Plan, insuring that the terms of the general permit are properly implemented.
- e. Integrity of all drainage systems

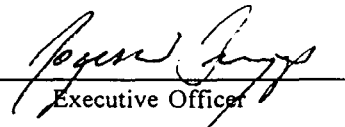
## J. RECEIVING WATERS

Any surface water which actually or potentially receives surface or ground waters which pass over, through, or under waste materials or contaminated soils.

K. VOLATILE ORGANICS COMPOSITE MONITORING PARAMETER FOR WATER (VOC<sub>water</sub>)

VOC<sub>water</sub> a composite parameter that encompasses a variety of volatile organic constituents. The constituents addressed by the VOC<sub>water</sub> Composite Monitoring Parameter include all VOCs detectable using USEPA Method 8260, including at least all 47 VOCs listed in Appendix I to 40 CFR 258, and all unidentified peaks.

ORDERED BY:

  
Executive Officer

9-9-94

Date